Tip

When analyzing the Z-test results, compare the selected Alpha level with the appropriate calculated P value (depending whether a one-tailed or two-tailed test is required). If the calculated P value is smaller than the Alpha level, the hypothesis (which, in the example given, is that the means of the two data sets are the same) should be rejected.

Tip

For more information on z-tests, refer to the corresponding Wikipedia article at https://en.wikipedia.org/wiki/Z-test.

Test of Independence (Chi-Square) tool

The Test of Independence (Chi-Square) tool calculates the chi-square test of a data sample, which determines how well a set of measured values fit a corresponding set of expected values. Select **Data > Statistics > Chi-square Test** on the Menu bar to access the Test of Independence (Chi-Square) dialog (Figure 357).

Input range
Specifies the cell range containing the source data.

Results to
Specifies the top left cell of the results area. When you run the tool, it will generate the Chi-square table starting at this cell.

Columns / Rows
Specifies whether the data to be analyzed is organized in columns or rows.

Tip

Use the **Shrink** / **Expand** buttons next to the *Input range* and *Results to* fields if you need to shrink the dialog while selecting cells with the mouse.

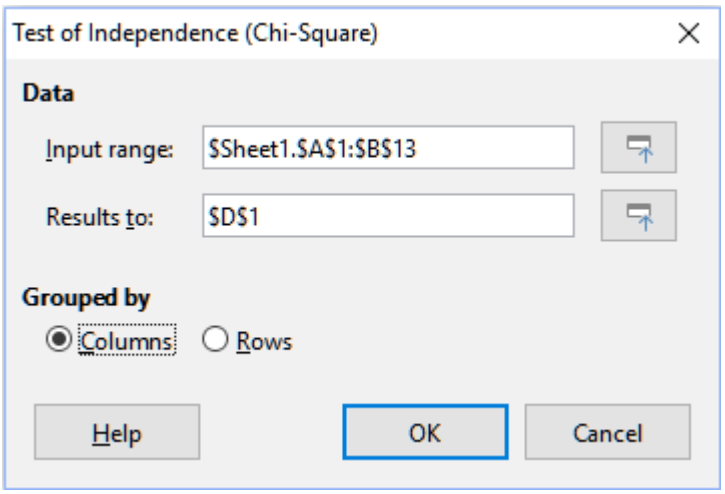

Figure 357: Test of Independence (Chi-Square) dialog

To provide an example of using this tool, we again make use of the input data set shown in Figure 351. In this case the data in column A is the observed data while the data in column B are the corresponding expected values. Figure 358 shows the chi-square results calculated for this input data using the settings shown in Figure 357.